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| 09/884,652      | 06/19/2001  | Brent D. Emerson     | DSCK-1223-C1        | 3487             |

7590 09/23/2003  
ANTHONY M. LORUSSO  
LORUSSO & LOUD  
440 COMMERCIAL STREET  
BOSTON, MA 02109

EXAMINER

HUNTER, ALVIN A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3711

DATE MAILED: 09/23/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/884,652

Applicant(s)

EMERSON ET AL.

Examiner

Alvin A. Hunter

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

Due to the discovery of Shaw et al. (USPN 4142727), finality of the office action dated December 30, 2002 will be withdrawn. Action taken on the merits are as follows:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727).

Cadorniga et al. discloses a golf ball having a cover resulting in a golf ball having improved resilience and playability characteristics (See Abstract). The cover comprises a blend of a high modulus ionomer and a low modulus ionomer, in which the high modulus ionomer has a melt index of 0.5-5.0 g/10 min. and flexural modulus of 60000 to 120000 psi and the low modulus ionomer has a melt index of 0.5-10.0 g/10 min and a flexural modulus of 2000 to 8000 psi (See Abstract and Column 3, lines 28 through 65). The high modulus ionomer has a hardness of 70 or greater and comprises 75-80% of an olefin, or ethylene, 20-25% of an alpha, beta ethylenically unsaturated carboxylic acid such as acrylic or methacrylic acid having 10-90% of the carboxylic acid groups neutralized with sodium, lithium, zinc or magnesium ions (See Column 3, lines 28 through 43). The low modulus ionomer has a hardness of 20 to 50 and comprises 67-70% of ethylene, 20-23% of n- or iso-butyl acrylate, and 10% of methacrylic acid where

Art Unit: 3711

10-90% of the acid groups are neutralized by sodium, zinc, or lithium ions (See Column 3, lines 56 through 65). The total cover composition comprises 80-50% of high modulus ionomer and 20-50% of low modulus ionomer (See Column 4, lines 12 through 26).

Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball. Shaw et al. discloses a golf ball having a dodecahedron pattern wherein the golf ball has 10 great circles not intersecting the dimples (See Entire Document). As shown in Figure 3, the each pentagon is broken up into five triangles by the great circles, wherein there are inherently 12 pentagons in the configuration thereby giving a total of sixty triangles on the golf ball. Shaw also discloses the total number of dimples being preferably 360 and the dimples' diameter being 0.085 to 0.150 inches (See Column 2, lines 31 through 36 and 48 through 51). Shaw discloses a golf ball having a dodecahedron dimple pattern to obtain optimum aerodynamic properties and flight performance of the golf ball (See Column 1, lines 1 through 14). One having ordinary skill in the art would have found it obvious to combine the dimple configuration of Shaw et al. to the cover of Cadorniga et al. in order to obtain a golf ball having optimum aerodynamic properties and flight performance.

Claims 8-10, 13-15, 18-20, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Cadorniga et al. (USPN 5415937) in view of Shaw et al. (USPN 4142727) further in view of Shaw (USPN 4877252) and Oka et al. (USPN 5072945).

Cadorniga et al. discloses a golf ball having a cover resulting in a golf ball having improved resilience and playability characteristics (See Abstract). The cover comprises a blend of a high modulus ionomer and a low modulus ionomer, in which the high

Art Unit: 3711

modulus ionomer has a melt index of 0.5-5.0 g/10 min. and flexural modulus of 60000 to 120000 psi and the low modulus ionomer has a melt index of 0.5-10.0 g/10 min and a flexural modulus of 2000 to 8000 psi (See Abstract and Column 3, lines 28 through 65).

The high modulus ionomer has a hardness of 70 or greater and comprises 75-80% of an olefin, or ethylene, 20-25% of an alpha, beta ethylenically unsaturated carboxylic acid such as acrylic or methacrylic acid having 10-90% of the carboxylic acid groups neutralized with sodium, lithium, zinc or magnesium ions (See Column 3, lines 28 through 43). The low modulus ionomer has a hardness of 20 to 50 and comprises 67-70% of ethylene, 20-23% of n- or iso-butyl acrylate, and 10% of methacrylic acid where 10-90% of the acid groups are neutralized by sodium, zinc, or lithium ions (See Column 3, lines 56 through 65). The total cover composition comprises 80-50% of high modulus ionomer and 20-50% of low modulus ionomer (See Column 4, lines 12 through 26).

Cadorniga et al. does not disclose a golf ball having a dodecahedron dimple pattern on the surface of the golf ball. Shaw et al. discloses a golf ball having a dodecahedron pattern wherein the golf ball has 10 great circles not intersecting the dimples (See Entire Document). As shown in Figure 3, the each pentagon is broken up into five triangles by the great circles, wherein there are inherently 12 pentagons in the configuration thereby giving a total of sixty triangles on the golf ball. Shaw also discloses the total number of dimples being preferably 360 and the dimples' diameter being 0.085 to 0.150 inches (See Column 2, lines 31 through 36 and 48 through 51). Shaw discloses a golf ball having a dodecahedron dimple pattern to enhance the flight performance of the golf ball (See Figures 1-4 and Column 1, lines 1 through 60). Shaw also shows a pentagon

Art Unit: 3711

comprising three rows of dimples from its center to the outer boundary (See Figures 3 and 4). The first dimple (B) sits on the center of the pentagon and, therefore, make up the first row. A second set of dimpled (B and D) sits in between the center and boundary of the pentagon. The third set comprising two inside dimples (A) and two outside dimples (A) sits along the boundary of the pentagons. Though the pentagon is not shown as being subdivided into triangles, the configuration corresponds to that claimed by the applicant within the present application. The dimples are different sizes and are all aimed to enhance the flight performance of the golf ball and, therefore, would be obvious to arrange the dimples in any configuration (See Column 2, lines 48 through 61). The invention of Shaw can be arranged so that the dimple pattern will influence the axis of spin (See Column 1, lines 55 through 60). Oka et al. discloses a golf ball having no dimples intersecting the great circle line to eliminate the difference in the trajectory heights of seam hitting and pole hitting (See Column 2, lines 31 through 43). It is noted by Oka et al. that the arrangement of the dimples arrangement of the dimples with respect to the parting line, or great circle, influences the trajectory height (See Background of the invention). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have any number of great circles on a golf ball, being free of dimples, dividing the pentagons within a dodecahedron pattern into triangles, as taught by the Oka et al. and Shaw, in order to optimize the flight performance of the golf ball by influencing the axis of spinning. Oka et al. has been substituted in place of the OFFICIAL NOTICE, therefore, the rejection has not been changed. It would appear that the dimensions of the dimples is a design

Art Unit: 3711

choice also due to the fact that no advantages or disadvantages as to why one of ordinary skill in the art should use only the dimension disclosed by the applicant; therefore, it would appear that any dimple dimension is suitable for obtaining the applicant's invention.

1. Claim 11, 16, 17 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claims 1-10, 12-15, 18-20 above in view of Cadorniga (USPN 5470076).

The prior art as applied to claims 1-10, 12-15, and 18-20 above do not disclose a dimple having dual radii. Cadorniga discloses a golf ball having a plurality of dimples to improve range and accuracy of a golf ball in which the dimples comprise of a minor dimple within a major dimple (See Summary of the Invention). It is clearly shown within Figure 2, that the dimple has two radii; therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a dimple with dual radii, as taught by Cadorniga, in order to improve the range and accuracy of the golf ball.

In regards to Claims 16, 17, 22 and 23, refer to Cadorniga et al. Shaw et al., and Shaw above.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***


Art Unit: 3711

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Sewell, can be reached on (703) 308-2126. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Alvin A. Hunter, Jr.

  
Paul T. Sewell  
Supervisory Patent Examiner  
Group 3700